

## December 2015

PERFORMANCE MEASURES

**Statewide Transportation Operations Center** 





#### WHAT IS STOC?

The Statewide Transportation Operations Center (STOC) operates 24 hours a day, seven (7) days a week to monitor and manage traffic along the roadway system throughout five (5) MDOT regions. STOC operators utilize closed-circuit television cameras (CCTVs), dynamic message signs (DMS) and various other communication resources in order to receive and disseminate real-time traffic conditions to the motoring public.



#### **Summary of Terminology**

Communication – Any phone call, e-mail or radio transmission that comes into or goes out of the control room.

CRO - Control Room Operator

**Event** – A task in which a CRO is involved. Multiple categories of events exist (e.g., incident, construction, weather, or special event).

FCP - Freeway Courtesy Patrol

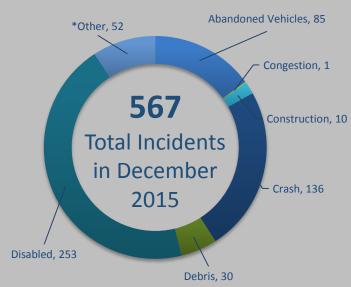
**FCP Assist** – Service provided to the motoring public for various incidents. Includes tire change, mechanical assist, provide gas, move debris, and traffic policing.

**High-Impact Incident** – Any incident that closes more than fifty percent of the freeway, closes both directions of an arterial, closes a freeway-to-freeway ramp, or a closure of less than fifty percent of the freeway/roadway but is also causing a significant delay.

*Incident* – An unplanned event that impacts the shoulder, lane(s) or a ramp of a state of Michigan trunkline (e.g., crash, vehicle fire, debris, or police situation).

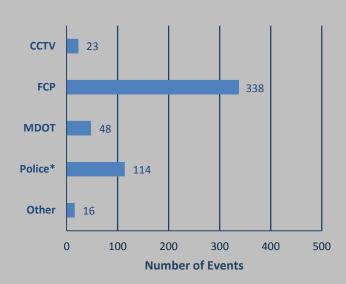
*Unique Message* – Any message posted to the dynamic messages signs (DMS) that relate to an incident, construction, special event, weather condition or an AMBER alert.

#### **Events by Type**



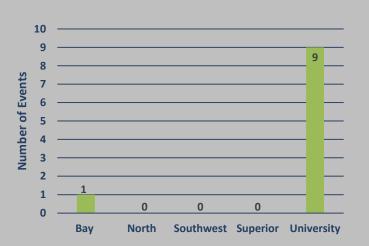
\*Other includes police situations, damage to MDOT property, maintenance, weather, AMBER Alerts, fire, special events, and other traffic impediments.

### Events by Detection Source



Of the **539** unplanned events in December 2015, **63%** were detected by Freeway Courtesy Patrol. \*Includes notification from dispatch, Nixles, and Bay Alerts.

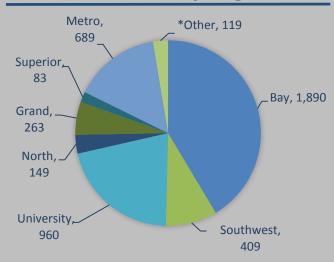
#### **Construction Events**



STOC CROs monitored and managed **10** construction events in December 2015.

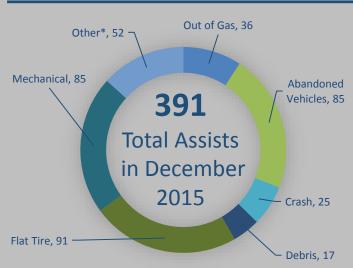
Note: CROs can manage multiple construction events, such as intermittent lane shifts and configuration changes, for each construction project managed by the TSCs.

#### **Communications by Region**



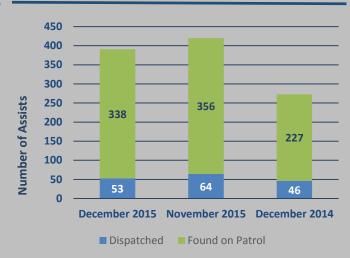
CROs managed **4,562** notifications (phone calls, e-mails, radio transmissions) in December 2015, with the largest percentage of all communications, 41% (1,890) between the control room and **Bay Region**.

#### **Assists by Type**



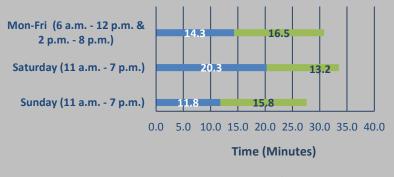
\*Other includes motorist sleeping, checking map, using cell phone, or medical emergency.

#### **Dispatched vs. Found on Patrol**



Of the 391 assists in December 2015, **86%** (338) were found while FCP drivers patrolled their routes.

#### **Average Assist Times**



■ Average Response Time ■ Average Clear Time

The response and clear times for all FCP assists are logged by CROs. These numbers represent the average response and clear times for all drivers during the time periods shown.

STOC has two FCP drivers working on two routes: one driver working in the Brighton area of I-96 and US-23 and the other driver working in the Ann Arbor area of I-94, US-23 and M-14.

#### **FCP Assists by Freeway**

|                 |           |         |                    | Avg.          | Avg.       |  |
|-----------------|-----------|---------|--------------------|---------------|------------|--|
|                 | Miles     | Total   | Assist Density     | Response Time | Clear Time |  |
| Freeway         | Patrolled | Assists | (assists per mile) | (minutes)     | (minutes)  |  |
| US-23           | 26.5      | 162     | 6.1                | 16.1          | 18.9       |  |
| I-94            | 18        | 111     | 6.2                | 11.8          | 13.1       |  |
| I-96            | 11        | 67      | 6.1                | 16.8          | 16.3       |  |
| M-14            | 15.5      | 51      | 3.3                | 17.3          | 12.7       |  |
| Totals/Averages | 71        | 391     | 5.5                | 14.5          | 16.0       |  |

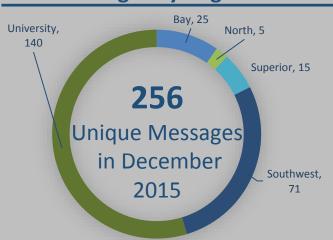
FCP provided the most assistance along **US-23** this month (**162 assists**) and **US-23** experienced the highest assists per mile (**6.1 assists per mile**).

#### **Stuck in Traffic Notifications**

# Southwest Region, 0 Bay Region, 14 North Region, 1 University Region, 130

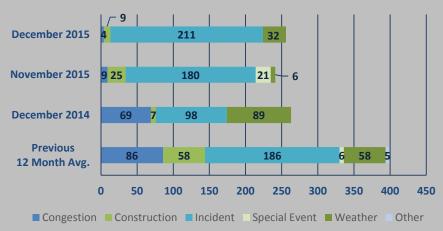
Stuck in traffic notifications are sent to the Control Room via motorists using the Mi Drive mobile website or Mi Drive Application.

#### **DMS Messages by Region**



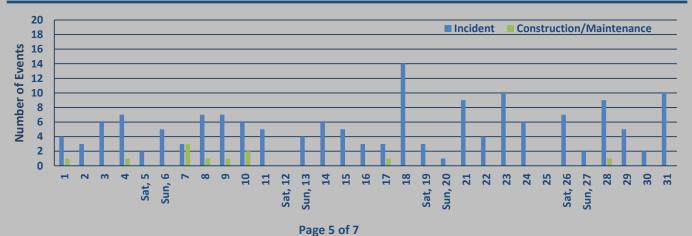
Of the **256** unique messages in December 2015, 55% of them were posted in the **University Region**.

#### **DMS Messages by Type**



Once a CRO receives notification and confirmation from stakeholders regarding a specific event, a message specific to the event location and event type will be sent to appropriate dynamic message signs (DMS).

#### **STOC Events Displayed on the Mi Drive Website**

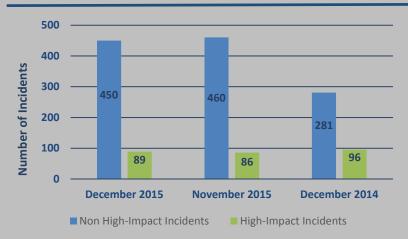


#### **Incidents by Freeway**

|                |       | December 2015      |                       |                     | November 2015      |                       |                     | December 2014      |                       |                     |
|----------------|-------|--------------------|-----------------------|---------------------|--------------------|-----------------------|---------------------|--------------------|-----------------------|---------------------|
| Freeway        | Miles | Total<br>Incidents | Incidents<br>per Mile | Average<br>Duration | Total<br>Incidents | Incidents<br>per Mile | Average<br>Duration | Total<br>Incidents | Incidents<br>per Mile | Average<br>Duration |
| I-475          | 17    | 3                  | 0.18                  | 217.30              | 2                  | 0.12                  | 95.0                | 1                  | 0.06                  | 1889.0              |
| I-496          | 12    | 4                  | 0.33                  | 91.8                | 4                  | 0.33                  | 30.8                | 2                  | 0.17                  | 131.5               |
| I-675          | 7     | 0                  | 0.00                  | 0.0                 | 2                  | 0.29                  | 143.0               | 3                  | 0.43                  | 191.0               |
| I-69           | 178   | 9                  | 0.05                  | 96.0                | 3                  | 0.02                  | 279.0               | 2                  | 0.01                  | 98.5                |
| I-75 *         | 288   | 15                 | 0.05                  | 41.5                | 8                  | 0.03                  | 69.1                | 8                  | 0.03                  | 79.4                |
| I-94 *         | 187   | 143                | 0.76                  | 26.3                | 148                | 0.79                  | 33.5                | 121                | 0.65                  | 24.8                |
| I-96 *         | 76    | 83                 | 1.09                  | 24.5                | 67                 | 0.88                  | 24.5                | 39                 | 0.51                  | 13.8                |
| M-14 *         | 23    | 52                 | 2.26                  | 15.8                | 62                 | 2.70                  | 21.0                | 41                 | 1.78                  | 19.2                |
| US-127         | 165   | 18                 | 0.11                  | 48.7                | 11                 | 0.07                  | 68.2                | 17                 | 0.10                  | 66.4                |
| US-131 *       | 91    | 1                  | 0.01                  | 25.0                | 2                  | 0.02                  | 32.5                | 4                  | 0.04                  | 144.0               |
| US-23          | 93    | 167                | 1.80                  | 22.3                | 190                | 2.04                  | 21.7                | 94                 | 1.01                  | 22.3                |
| US-31 *        | 85    | 1                  | 0.01                  | 61.0                | 0                  | 0.00                  | 0.0                 | 1                  | 0.01                  | 16.0                |
| Total/Averages | 1,222 | 496                | 0.41                  | 27.8                | 499                | 0.41                  | 30.6                | 333                | 0.27                  | 35.1                |

<sup>\*</sup>These figures are discounted and do no include incidents on stretches of freeway managed by WMTOC, SEMTOC or BWBTOC.

#### **Total Incidents**



There were a total of **539 Incidents** in the month of December, **17 percent** of these were classified as high-impact.

A high-impact **Incident** is one that closes more than fifty percent of the freeway, closes both directions of an arterial, closes a freeway-to-freeway ramp, or closes less than fifty percent of the freeway/roadway but is also causing a significant delay.

#### **Longest Duration Incidents**

| Location                                              | County  | Day                   | Duration    | Details          |  |
|-------------------------------------------------------|---------|-----------------------|-------------|------------------|--|
| SB BL I-96 (Cedar Street) at M-43 (E. Saginaw Street) | Ingham  | Tuesday, December 8   | 937 Minutes | Water Main Break |  |
| NB & SB M-54 (N. Dort Highway) at Frances Road        | Genesee | Tuesday, December 1   | 360 Minutes | Structure Fire   |  |
| EB I-94 Exit ramp to US-12 (Pulaski Highway)          | Berrien | Friday, December 18   | 332 Minutes | Vehicle Crash    |  |
| WB US-10 BR (Eastman Ave) at Saginaw Road             | Midland | Monday, December 7    | 283 Minutes | Semi Crash       |  |
| NB & SB M-15 (State Road) at Main Street              | Tuscola | Wednesday, December 9 | 272 Minutes | Structure Fire   |  |

The top duration **Incident** this month occurred along **BL I-96 (Cedar St)** and lasted **937** minutes, compared to the average duration of **34.4** minutes (average of all STOC managed events).

